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ISO/REMCO
ISO COUNCIL COMMITTEE ON REFERENCE MATERIALS
14th Meeting, Beijing, China,1989-05-19/21

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ISO/REMCO
ISO COUNCIL COMMITTEE ON REFERENCE MATERIALS
14th Meeting, Beijing, China, 1989-05-19/21

by

R. Sutarno*

This report covers the 14th meeting of ISO/REMCO, held in Beijing, China, May 19-21, 1989.

Three main topics were discussed at the meeting: (i) hierarchy of reference materials, (ii) calibration process using reference materials, and (iii) promotion of certified reference materials. Twenty-four delegates representing nine countries and one international agency (IAEA) attended this meeting.

Keywords: ISO, certified reference material, accuracy, standard, calibration, statistics.

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REMCO/ISO
COMITÉ DU CONSEIL DE L'ISO POUR LES MATÉRIAUX DE RÉFÉRENCE
14ième réunion, Beijing, Chine, 19/21-05-1989

par

R. Sutarno*

Le présent rapport est le compte rendu de la 14ième réunion du Comité de l'ISO pour les matériaux de référence (REMCO/ISO) qui s'est tenue à Beijing, Chine, les 19-21 mai 1989.

Trois sujets principaux ont été examinés lors de la réunion: i) hiérarchie des matériaux de référence, ii) étalonnage à l'aide de matériaux de référence et iii) promotion de matériaux de référence certifiés. Vingt-quatre délégués représentant neuf pays et un organisme international (AIEA) ont participé à cette réunion.

Mots clés: ISO, matériau de référence certifié, précision, norme, étalonnage, statistique.

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ISO/REMCO

ISO COUNCIL COMMITTEE ON REFERENCE MATERIALS

14th Meeting, Beijing, China, 1989-05-19/21

The meeting was attended by twenty four delegates representing nine countries and one international agency (IAEA). The topics discussed are listed in the appended document ISO/REMCO 170 Rev. The following is a summary of the main discussion.

1. Report of the Secretariat.

Since the 13th meeting, REMCO has issued the following documents:

ISO Guide 33 (first edition)
ISO Guide 35 (second, revised and enlarge edition)
ISO/REMCO information leaflet (first edition)

The Secretariat tabled an updated list of members (Document ISO/REMCO 177) and REMCO Program of Work (Document 176 Annex 3).

2. Report of various Task Groups

REMCO has three operating task groups: Hierarchy, Calibration and Promotion. After brief reports from their conveners, the task groups met separately. The following are the results of these meetings:

(a) Task Group 1: Hierarchy.

The original terms of reference of this task group were:

- To collect and analyze viewpoints concerning the definition of "Certified Reference Material (CRM) producers", with special emphasis on traceability, and to draft a definition of the term for inclusion in ISO Guide 30.

- To review ISO Guide 30, and to draft revisions to it.

- To coordinate future revision of ISO Guide 30 with future revision of the International Vocabulary of Basic and General Terms in Metrology, so that both documents are in harmony.

- To consider definitions, categories, levels and classifications of reference materials, and recommend actions for REMCO deliberation.

The group decided that the subjects of traceability and levels of reference materials are too complicated. The task group terms of reference were then reduced to revising ISO Guide 30 - "Terms and definitions of reference materials" and harmonizing it with the terminology in metrology.

(b) Task Group 2: Calibration

The original terms of reference of this task group were:

- To study mathematical, including statistical, models of calibration using Certified Reference Materials and to draft appropriate guidance to CRM users for inclusion in ISO guides.

- To develop mathematical models that will assist CRM producers to establish certified levels when certification data arise from multiple methods, multiple laboratories, method-dependent analyses, or combinations of these sources.

- To collect and disseminate databases of available CRMs and CRMs in production or planned.

Members of this task group are: J.P. Caliste (France, Convener), K. Wandelburg (Germany), H. F. Steger (Canada - replaced by R. Sutarno), E. Deak (Hungary) and H. Imai (Japan). A paper on the use of CRM for calibration was presented by the convener and was discussed. This paper will also be distributed to members of ISO/TC 69/SC 6/WG 4 (ISO Technical Committee on Application of Statistical Methods, Subcommittee on Measurements and Results, Working Group on Statistical Aspects of Reference Materials) as a working document for consideration in their deliberation of drafting a statistical document on the same subject. It was unanimously agreed that the problem of the use of reference materials for the purpose of calibration is very complicated, both from theoretical (propagation of the uncertainty of the reference materials) as well as from a practical point of view (such as finding a set of reference materials with equal quality for the desired range). After a long discussion, it was agreed that cooperation with TC 69 should be sought. The task group then recommended REMCO to request TC 69 to develop a document on the statistical aspects of instrument calibration using reference materials, and REMCO will develop the part of the document on the chemical and physical aspects. Members of REMCO are requested to submit practical examples of the use of reference materials (including pure substances) for instrument calibrations in their laboratories. These examples should be submitted in time for the TC 69/SC 6/WG 4 meeting to be held in Berlin, November 1989.

(c) Task Group 3: Promotion

The terms of reference of this task group are:

- To provide liaison with ISO and IEC technical committees, international organizations, institutions, agencies and CRM users, in order to identify their needs for CRMs and convey them to producers.

- To inform ISO TCs of CRM availability and encourage mention of CRMs in standards, as appropriate.

- To help organize workshops, seminars and demonstrations, partly in cooperation with DEVCO (the ISO Council Committee on development), to train potential users of CRMs.

To implement the above terms of reference, the task group recommended that REMCO should undertake the following programs:

(1). To reach out to other international organizations, both within ISO (TC's) and other international organizations, to promote the use of reference materials.

(2). To undertake an educational program including sponsorship of a symposium on the awareness of reference materials (the importance of the proper use of reference materials). Arthur Head of UK was requested to prepare instructional documents (texts, pamphlets) on this subject. The following are some of the targeted audiences:

- Technical editors of scientific journals.
- Symposium sponsors.
- Universities (professors, students).
- Technicians.
- Laboratory managers.
- Instrument manufacturers

Members are requested to implement this program in their own countries.

3. Information on the COMAR data base

The data base for information on the international availability of certified reference materials (COMAR) was demonstrated. The information in the data base can be retrieved by various means such as the composition, the common name, or the possible uses of the reference materials. The data base will respond by listing the possible suppliers. The plan is to distribute (at a cost) this data base in the form of floppy disks. The financial detail for implementation of this program is still under consideration. The hardware requirement for operating this data base is an IBM compatible personal computer with a minimum RAM of 512 Kb and a 20 Mb hard disk. The data base program was written in dBASE III.

4. ISO/REMCO - TC 69 joint workshop

The RM Symposium that was held in conjunction with this meeting was very successful. The Central Secretariat offered to host a similar symposium in Geneva in the near future. To take advantage of this offer, a workshop on the assessment and maintenance of accuracy of ISO standard methods was proposed. This workshop, which should be sponsored jointly by REMCO, ISO/TC 69 and ISO Central Secretariat, will act as a harmonizing mechanism within ISO on the subject. This workshop will be timely with the publi-

cation of the new version of ISO 5725 (planned for 1990), the ISO standard method for the assessment and maintenance of accuracy of measurement methods. This standard complements ISO Guides on reference materials issued by REMCO. An understanding of these documents is essential for technical committees in order that they may be able to properly assess and control the accuracy of the ISO standard methods they are developing. Participants of this workshop will be the representatives of ISO technical committees and members of both REMCO and TC 69. The meeting was receptive to this proposal and R. Sutarno was requested to put it in writing and submit The proposal to REMCO's secretariat as soon as possible.

5. Date and place of the next meeting:

The 15th. REMCO meeting will be held in September 1990, in Geneva, Switzerland.

Reference material is one of the essential ingredients required for a measurement process. It is used as a means of checking the trueness of the measurement method as well as a storage of characteristic value in calibration processes. Within the ISO organization, REMCO acts as a horizontal committee. It serves as adviser to all ISO technical committees on matters relating to reference materials. Externally, REMCO has become the international coordinator of the reference materials pool. This is an important role since no country is self sufficient in her reference materials needs. The importance of REMCO to Canada is through the benefits that other technical committees receive from REMCO's activities. For this reason, as an active member of various ISO technical committees, Canada should continue to support REMCO's activities.

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ISO/REMCO 170 Rev.
March 1989

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FOURTEENTH MEETING OF THE COUNCIL COMMITTEE ON REFERENCE MATERIALS (REMCO)

19-21 May 1989 - The first session will start on 19 May 1989 at 09:30 in BEIJING, China - Fragrant Hill Hotel

DRAFT AGENDA		Reference documents
1.	Opening of the meeting, welcome by the Chinese delegation, practical information	
2.	Adoption of the agenda	ISO/REMCO 170 Rev.
3.	Report of the Secretariat	ISO/REMCO 176 & 177
4.	Matters arising from the 13th meeting	
	4.1 Report of Task Group 1 "Hierarchy"	ISO/REMCO 172
	4.2 Report of Task Group 2 "Calibration"	ISO/REMCO *
	4.3 Report of Task Group 3 "Promotion"	ISO/REMCO 166
	4.4 Report to the ISO Council	ISO/REMCO 160
	4.5 RM in preparation	
	4.6 Any other business	
5.	Activity of ISO/TAG 4	ISO/REMCO 168
6.	Revisions and additions to existing REMCO documents	
	6.1 Certification	
	6.2 RM Directory	
	6.3 General principles governing revisions and additions	
7.	Information on the COMAR data base	ISO/REMCO *
8.	Information and discussion regarding current work in the fields related to that of REMCO	
	8.1 VIM Vocabulary	ISO/REMCO 179
	8.2 ISO/TC 69/SC 6/WG 4 - REMCO cooperation	ISO/REMCO 175
	8.3 ISO/IUPAC "Harmonization of protocols for the adoption and the presentation of analytical methods"	
	8.4 OIML	ISO/REMCO 173 & 174
	8.5 ILAC	ISO/REMCO 178
	8.6 Others	
9.	Exchange of views on the work of the RM Symposium from 15 to 17 May 1989	
10.	Proposals for new work	
11.	Any other business	ISO/REMCO 167
12.	Date and place of the next meeting	
13.	Closure of the meeting	

* Documents will be distributed later.

French overleaf

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ISO/REMCO 170 Rév.
Mars 1989

QUATORZIEME REUNION DU COMITE DU CONSEIL POUR LES MATERIAUX DE REFERENCE (REMCO)

19-21 mai 1989 - La première séance débutera le 19 mai 1989 à 09:30
à BEIJING, Chine - Hôtel Fragrant Hill

PROJET D'ORDRE DU JOUR	Documents de référence
1. Ouverture de la réunion, acceuil de la délégation chinoise, informations pratiques	
2. Adoption de l'ordre du jour	ISO/REMCO 170 Rév.
3. Rapport du secrétariat	ISO/REMCO 176 & 177
4. Questions relevant du rapport de la 13e réunion	
4.1 Rapport du Task Groupe 1 "Hiérarchie"	ISO/REMCO 172
4.2 Rapportof du Task Groupe 2 "Etalonnage"	ISO/REMCO *
4.3 Rapportof du Task Groupe 3 "Promotion"	ISO/REMCO 166
4.4 Rapport au Conseil de l'ISO	REMCO 160 (Annexe 2)
4.5 MR en préparation	
4.6 Divers	
5. Activité de l'ISO/TAG 4	ISO/REMCO 168
6. Révisions et additions concernant les documents REMCO existants	
6.1 Certification	
6.2 Répertoire des MR	
6.3 Principes généraux de révisions et additions	
7. Information sur la banque de données COMAR	ISO/REMCO *
8. Information et discussion de travaux en cours dans des domaines connexes de celui du REMCO	
8.1 Vocabulaire VIM	ISO/REMCO 179
8.2 Coopération entre REMCO et l'ISO/TC 69/SC 6/GT 4	ISO/REMCO 175
8.3 ISO/IUPAC "Harmonization of protocols for the adoption and the presentation of analytical methods"	
8.4 OIML	ISO/REMCO 173 & 174
8.5 ILAC	ISO/REMCO 178
8.6 Autres	
9. Echanges de vues sur les travaux du Symposium MR du 15 au 17 mai 1989	
10. Propositions de nouveaux travaux	
11. Divers	ISO/REMCO 167
12. Date et place de la prochaine réunion	
13. Clôture de la réunion	

* Documents à distribuer ultérieurement.

Anglais au verso

016 E/F-79.07-5 000

ISO

ATTENDANCE LIST/LISTE DE PRESENCE

meeting/réunion REMCO

place and date/lieu et date BEIJING, CHINA

From 19 to 21 May, 1989

Name (in block capitals) and surname Nom (en capitales) et prénom	Organization (initials) and country* Organisation (initiales) et pays*	Signature
RASBERRY, STANLEY D.	NIST U.S.A. (ANSI)	Stanley D. Rasberry
HEAD, ARTHUR J.	BSI UK.	A.J. Head.
RIDSDALE, PETER D	BSI UK.	
LIPINSKI, JACEK	PKNMiJ-WZORMAT, POLAND	
IMAI, HIDETAKA	NRLM JAPAN (JISC)	H. Imai
SCHELENZ, RIEDER F.W.	IAEA	R. Schelenz
DEAK E. [illegible]	[illegible]	[illegible]
WANDELBURG, KLAUS	DIN, Germany F.R.	Wandelburg
KLICH, HARRY	DIN, Germany FRG	
CALISTE Jean Rene	AFNOR/LLE FR	
COURTIER Jean-claude	AFNOR FR	Courtier
Liu, Guanghui	CSBS (SBTS CN) CHINA	Liu G.
Song, Junwei	CSBS (SBTS CN) CHINA	Song Junwei
LIN, ZHUORAN	SBTS CN CHINA	Lin Zhuoran
PEI, SHAN	SBTS CN CHINA	pei shan
HONG, YONGDUI	SBTS CN CHINA	Hong Yongdui
Han Yong Hui	SBTS CN CHINA	Han Yonghui
XU ZHEWEN	SBTS CN CHINA	Xu Zhewen
Zheng Li	SBTS CN CHINA	Zheng Li
XUE NAN	SBTS CN CHINA	Xue Nan
ZHANG, PIN	SBTS CN CHINA	Zhan pin
MA, LINCONG	SBTS CN CHINA	Ma Lincong
LIU, YONGKANG	SBTS CN CHINA	Liu Yongkang
SUTARNO, Robert	SCC CANADA	R. Sutarno

Country not to be indicated in the case of representatives of international organizations.
Ne pas indiquer le pays dans le cas de représentants d'organisations internationales.

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